

BEFORE THE OFFICE OF THE COMMISSIONER OF RAILROADS

STATE OF WISCONSIN

Petition of the Wisconsin Department of Transportation for the Alteration of Two Public Crossings of the Union Pacific Railroad Co. Tracks with CTH 'KR' and Chickory Road in the Village of Mt. Pleasant, Racine County

9040-RX-1185

FINAL DECISION

By letter dated July 29, 2004, the Wisconsin Department of Transportation (DOT) filed a petition with the Office of the Commissioner of Railroads (OCR) under §§86.13, 195.28 and 195.29, Stats., for the alteration of two public crossings of the Union Pacific Railroad Co. (UP) tracks with CTH 'KR' and Chickory Road in the Village of Mt. Pleasant, Racine County (crossing no. 176 681S / MP 57.36 and 176 683F / MP 58.43).

Pursuant to due notice, public hearing was held in this matter on September 16, 2004 in Madison, Wisconsin with hearing examiner Douglas S. Wood presiding.

On October 1, 2004, the hearing examiner issued a proposed decision. On October 11, 2004, the Wisconsin Department of Transportation submitted comments supporting the proposed decision. DOT did request several changes in the final decision. First, DOT states that the correct spelling of the road identified as 'Chickory Road' is Chicory Road. The Land Atlas & Plat Book for Racine County shows the spelling as 'Chickory'.

DOT also requested an adjustment in the cost-sharing for CTH 'KR'. DOT notes that the cost share in the proposed decision for CTH 'KR' uses 78' as the length of the finished crossing. DOT states that the crossing length should be 81'. Although 78' is all that is needed to cover the crossing, it will require 10 panels at 8.125' each to span the crossing (~81 feet). This would result in a cost share of 51% (41/81) railroad and 49% (40/81) DOT, which is slightly more favorable to the railroad than proposed decision's cost share. The Commissioner amends the order accordingly.

DOT also asks that the deadline for the installation of crossing signals should be December 1, 2006, rather than November 1, 2006 as stated in the proposed decision. The Commissioner amends the order accordingly.

With these changes the Commissioner adopts the proposed decision as final.

Appearances:

**Parties**

Wisconsin Department of Transportation, Petitioner  
by  
Mark Leemon  
Railroad Project Coordination Engineer  
PO Box 7914  
Madison, Wisconsin 53707-7914

In Support:

Kenosha County (by letter)  
by  
Gary Sipsma, Director  
Kenosha County Division of Highways  
19600 – 75<sup>th</sup> Street  
Bristol, WI 53104

No appearance by the Union Pacific Railroad Co.

Findings of Fact

THE COMMISSIONER FINDS:

The Wisconsin Department of Transportation proposes to alter two public crossings of the Union Pacific Railroad Co. tracks with CTH 'KR' and Chickory Road in the Village of Mt. Pleasant. The DOT plans to reconstruct STH 32 during the 2006 construction season. The UP tracks run parallel to STH 32 on the west side. CTH 'KR' and Chickory Road are side roads that cross the UP tracks and intersect STH 32. As part of the project, DOT proposes to widen the CTH 'KR' and Chickory Road crossings from 2-lanes to 4-lanes. DOT also proposes to upgrade the warning devices at both crossings.

The railroad currently operates 6 through train movements per day over these crossings at a speed of 40 mph.

**CTH 'KR' crossing no. 176 681S / MP 57.36**

CTH 'KR' is 24' wide with shoulders of varying width. CTH 'KR' intersects the UP tracks at an angle of 72°. The existing crossing is a 41' concrete panel crossing in good condition. The crossing consists of one mainline track. The crossing is 75' west of STH 32.

The project will widen CTH 'KR' in the vicinity of the crossing and the STH 32 intersection to include a 12'-wide eastbound through lane, a 20'-wide eastbound right-turn lane, and one westbound lane

between 12'- and 18'-wide. At the crossing the westbound lane will be slightly less than 18' in width. The project will also install a 10'-wide median on each approach. The crossing will need to be 78' (measured along the track), however, as a practical matter the crossing will be about 81' (10 concrete panels at 8.125' each). Traffic volumes warrant concrete panels. The altered crossing will be 63' from STH 32.

The CTH 'KR'/STH 32 intersection is currently controlled by stop signs on CTH 'KR'. The project will install traffic signals at the intersection. Those traffic signals will need to be interconnected with the crossing signals.

CTH 'KR' carried 3400 ADT (average daily traffic) in 2002. The DOT projects CTH 'KR' will carry 5200 ADT in the design year of 2025. The speed limit is 45 mph.

The exposure factor at this crossing is 20,400. The exposure factor at this crossing will exceed 31,000 in the design year assuming 6 train movements per day. The exposure factor equals the product of the number of trains per day and the number of highway vehicles per day, which yields a numerical value for the potential conflicts each day at the crossing.

No train-vehicle accidents have occurred at this crossing since 1973.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed. Train speed is strongly correlated with fatalities in train/vehicle accidents. More specifically, crossings with train speeds of 40 mph and over have a disproportionate number of fatalities. According to Federal Railroad Administration (FRA) statistics, nationally, in 1994 71% of fatalities occurred at crossings with train speeds of 40 mph+, even though only 26% of all crossings had train speeds of 40 mph+.

The crossing presently has 12" incandescent automatic flashing lights with gates for warning devices. These warning devices will be inadequate after the project widens the roadway. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety, one cantilevered and one mast-mounted 12" LED automatic flashing lights with gates are needed for the eastbound lanes and one mast-mounted 12" LED automatic flashing light with gates is needed for the westbound lane. The signals will be interconnected with the traffic signals at STH 32. Constant warning time circuitry is also required.

In summary, the alteration of the crossing at-grade of the UP tracks with CTH 'KR' will promote public safety and convenience by providing a separate right-turn lane (increasing the storage capacity for eastbound traffic) and by interconnecting the crossing signals with the traffic signals, which will reduce the chances that a driver will be stranded on the crossing when a train approaches.

### **Chickory Road                    crossing no. 176 683F / MP 58.43**

Chickory Road is 24' wide with shoulders of varying width. Chickory Road intersects the UP tracks at an angle of 71°. The crossing consists of one mainline track. The existing crossing is a 32.5' (measured along the tracks) timber crossing in good condition. The crossing consists of one mainline track. The crossing is 57' west of STH 32.

The project will widen Chickory Road in the vicinity of the crossing and the STH 32 intersection to include a 12'-wide eastbound through lane, a 20'-wide eastbound right-turn lane, and one westbound lane between 12'- and 18'-wide. At the crossing the westbound lane will be slightly less than 18' in width. The project will also install a 10'-wide median on each approach. The crossing will need to be 81' (measured along the track). Traffic volumes do not warrant concrete panels. The altered crossing will be 45' from STH 32.

Chickory Road carried 2500 ADT in 2002. The DOT projects Chickory Road will carry 3700 ADT in the design year of 2025. The speed limit is 35 mph.

The exposure factor at this crossing is 15,000. The exposure factor at this crossing will exceed 22,000 in the design year assuming 6 train movements per day.

Four train-vehicle accidents have occurred at this crossing since 1973. The accidents occurred in 1976, 1981, 1986, and 1994.

Accidents that do occur here will likely be quite serious if a through train is involved due to their 40 mph speed.

The crossing presently has 12" LED automatic flashing lights for warning devices. These warning devices will be inadequate after the project widens the roadway. The existing warning devices will be adequate until such time as the new warning devices are installed. In order to adequately protect public safety, one cantilevered and one mast-mounted 12" LED automatic flashing lights with gates are needed for the eastbound lanes and one mast-mounted 12" LED automatic flashing light with gates is needed for the westbound lane. The signals will be interconnected with the traffic signals at STH 32. Constant warning time circuitry is also required.

In summary, the alteration of the crossing at-grade of the UP tracks with Chickory Road will promote public safety and convenience by providing a separate right-turn lane (increasing the storage capacity for eastbound traffic) and by interconnecting the crossing signals with the traffic signals, which will reduce the chances that a driver will be stranded on the crossing when a train approaches.

*Constant warning time circuitry* adjusts for train speed and causes the crossing signals to always operate for the same amount of time before the train reaches the crossing, regardless of train speed. A motion detector simply detects the train operation, but does not adjust for train speed so that the amount of warning time varies based on train speed.

*Light emitting diodes (LED)* lamps replace incandescent bulbs. LEDs have higher conspicuity, a wider cone of vision, and longer life than incandescent lights. LEDs are especially useful on east-west roadways where the rising and setting sun may make the signals difficult to see.

**Costs:** Railroads have a statutory duty to maintain crossings and to improve crossings to meet highway projects (ss. 86.12 and 86.13 Stats.). The OCR's standard practice when a crossing is widened is to apportion the costs based on the ratio of existing crossing to the widened crossing with the railroad bearing the cost for existing crossing and the highway authority paying for the

added width or length. In this case, the CTH 'KR' crossing is being lengthened from 41' to 81'. Thus, the costs would be apportioned 51% to the railroad and 49% to DOT ( $41 / 81 = 0.51$ ). Likewise, the Chickory Road crossing is being lengthened from 32.5' to 81', so that the cost would be apportioned 40% to the UP and 60% to DOT.

At the hearing, the DOT reported that these crossings had apparently been replaced in the Spring of 2004. The crossings appear to be in good condition. Nonetheless, the costs for the alteration of these crossings will be apportioned in the standard manner as set forth above. The UP had received notice of the impending DOT project prior to the apparent reconstruction of the crossings, but decided to repair the crossings before the project. The UP also received notice that the DOT proposed to apportion the costs based on this pro-rated basis in the DOT's petition letter to the OCR dated July 29, 2004. (The percentages were slightly different at that time because the proposed width of the altered roadways changed, but the formula used was the same.) The UP failed to appear at the hearing to provide evidence as to when the crossings were rebuilt or to support some other apportionment of the costs.

**Source of funding:** The signal materials and installation shall be funded by the DOT highway project.

#### Ultimate Conclusions on the Issues

##### THE COMMISSIONER CONCLUDES:

1. That the alteration of the crossings at-grade of CTH 'KR' and Chickory Road with the Union Pacific Railroad Co. tracks in accordance with the design plans of the Wisconsin Department of Transportation in the Village of Mt. Pleasant, Racine County will promote public safety and convenience.
2. That in order to adequately protect and promote public safety, it is necessary to install and maintain one cantilevered and one mast-mounted 12" LED automatic flashing lights with gates for the eastbound lanes and one mast-mounted 12" LED automatic flashing light with gates for the westbound lane at the CTH 'KR' and the Chickory Road crossings with a preempt interconnection between the crossing signals and the traffic signals at the STH 32 intersections.
3. That it is reasonable that the Union Pacific Railroad Co. bear 51% of the cost for the CTH 'KR' crossing construction and 40% of the cost for the Chickory Road crossing construction.

#### Conclusion of Law

##### THE COMMISSIONER CONCLUDES:

That the jurisdiction of the Office of the Commissioner of Railroads under §§195.28 and 195.29, Stats., extends to this matter. Accordingly, the Office enters an order consistent with the findings of fact.

## Order

### THE COMMISSIONER ORDERS:

1. That the **Union Pacific Railroad Co.** shall install and maintain a crossing at-grade of **CTH 'KR'** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation in the Village of Mt. Pleasant, Racine County by **November 1, 2006**. (Crossing No. 176 681S / MP 57.36)

2. That the **Union Pacific Railroad Co.** shall install and maintain a crossing at-grade of **Chickory Road** with its tracks in accordance with the design plans of the Wisconsin Department of Transportation in the Village of Mt. Pleasant, Racine County by **November 1, 2006**. (Crossing No. 176 683F / MP 58.43)

3. That the **Union Pacific Railroad Co.** shall install and maintain one cantilevered and one mast-mounted 12" LED automatic flashing lights with gates for the eastbound lanes and one mast-mounted 12" LED automatic flashing light with gates for the westbound lane with constant warning time circuitry, and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **CTH 'KR'** at-grade in the Village of Mt. Pleasant, Racine County by **December 1, 2006** (Crossing No. 176 681S / MP 57.36). That as part of this signal installation the **Union Pacific Railroad Co.** shall install and maintain an interconnection that provides for the advance preemption of the traffic signals at the STH 32 intersection (as determined by the Wisconsin Department of Transportation).

4. That the **Union Pacific Railroad Co.** shall install and maintain one cantilevered and one mast-mounted 12" LED automatic flashing lights with gates for the eastbound lanes and one mast-mounted 12" LED automatic flashing light with gates for the westbound lane with constant warning time circuitry, and other appropriate appurtenances in accordance with such plans as are filed with and approved by the Office of the Commissioner of Railroads at the crossing of its tracks with **Chickory Road** at-grade in the Village of Mt. Pleasant, Racine County by **December 1, 2006** (Crossing No. 176 683F / MP 58.43). That as part of this signal installation the **Union Pacific Railroad Co.** shall install and maintain an interconnection that provides for the advance preemption of the traffic signals at the STH 32 intersection (as determined by the Wisconsin Department of Transportation).

5. That the **Union Pacific Railroad Co.** shall submit to the Office of the Commissioner of Railroads signal and circuit plans with the cost estimate of its proposed installation and upon completion of the signal project, a detailed statement of the actual cost to the Office and to the Wisconsin Department of Transportation.

6. That the signal installation work herein ordered shall not begin until the district office of the Wisconsin Department of Transportation informs the railroad that they may start such work and such start notice will not be issued until appropriate federal aid or other funding arrangements have been assured. The cost of the new project initiated before the start notice will not be reimbursed with public funds and shall be the responsibility of the railroad.

7. That the **Wisconsin Department of Transportation** shall install and maintain "parallel tracks" advance warning signs [Sign W10-2, 3, or 4 in the Manual on Uniform Traffic Control Devices (MUTCD)] on **STH 32** at a distance in accordance with the MUTCD from the intersections of **CTH 'KR' and Chickory Road** by **November 1, 2006**.

8. That the **Union Pacific Railroad Co.** shall bear 51% of the cost for the CTH 'KR' crossing construction and 40% of the cost for the Chickory Road crossing construction. The Wisconsin Department of Transportation shall bear the remaining costs, except for any cost assessed to the railroad pursuant to §195.60, Stats., for the investigation of this matter by the Office. The railroad shall not pass on those assessment costs either directly or indirectly.

9. That jurisdiction is retained.

Dated at Madison, Wisconsin, \_\_\_\_\_.

By the Office of the Commissioner of Railroads.

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Rodney W. Kreunen  
Commissioner of Railroads

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